

Appl. No. : **10/041,765**
Filed : **January 7, 2002**

AMENDMENTS TO THE CLAIMS

1. (Original) A method for processing checks that utilizes a first scoring process to determine an initial risk score for a check transaction, wherein the method then evaluates the initial risk score for the check transaction to determine whether to utilize a second scoring process, the method comprising:

receiving a request from a merchant to evaluate the risk associated with a check transaction;

determining with a first scoring process, an initial risk score based on transaction data associated with the check transaction;

determining based on the initial risk score whether to decline the check transaction;

selecting, based at least in part on the initial risk score, a second scoring process that is different than the first scoring process;

determining with the second scoring process a second risk score;

authorizing the check transaction based at least in part on the second risk score; and

providing the authorization of the check transaction to the merchant.

2. (Original) The method of Claim 1, wherein receiving the request comprises receiving an electronic request from the merchant.

3. (Original) The method of Claim 1, wherein determining the initial risk score comprises invoking a first scoring model from a plurality of scoring models, wherein the first scoring model calculates the initial risk score based on the transaction data.

4. (Original) The method of Claim 3, wherein the transaction data comprises information about the check, the writer of the check, and the merchant.

5. (Original) The method of Claim 4, wherein the initial risk score is based on the combination of information about the check, the writer of the check, and the merchant.

6. (Original) The method of Claim 1, wherein determining whether to decline the check comprises comparing the initial risk score to a predetermined first

Appl. No. : **10/041,765**
Filed : **January 7, 2002**

cutoff score, wherein the check is declined if the initial risk score is lower than the first cutoff score.

7. (Original) The method of Claim 6, wherein the predetermined first cutoff score comprises a score of 500 on a normalized score scale of 0 to 1000.

8. (Original) The method of Claim 1, wherein selecting the second scoring process comprises selecting a second scoring model from the plurality of scoring models if the check is declined based on the initial risk score, wherein the selected second scoring model calculates the second risk score based on the initial risk score and the transaction data.

9. (Original) The method of Claim 8, wherein determining the second risk score further comprises accessing one or more external databases to obtain additional information if necessary.

10. (Original) The method of Claim 1, wherein authorizing the check transaction comprises comparing the second risk score to a predetermined second cutoff score, wherein the check is authorized if the second risk score is higher than the second cutoff score.

11. (Original) The method of Claim 10, wherein the predetermined second cutoff score comprises a score of 500 on a normalized score scale of 0 to 1000.

12. (Original) The method of Claim 1, wherein providing the authorization of the check transaction to the merchant comprises electronically transmitting either decline or authorize decision electronically.

13. (Original) A method for processing financial transactions that utilizes a first scoring process to determine a first risk score for a financial transaction, wherein the method then evaluates the first risk score associated with the financial transaction to determine whether to utilize a second scoring process, the method comprising:

receiving a request from a merchant to evaluate the risk associated with a financial transaction;

determining with a first scoring process a first risk score for the financial transaction;

determining based on the first risk score whether the financial transaction should be authorized or declined.

Appl. No. : **10/041,765**
Filed : **January 7, 2002**

if the financial transaction is declined, determining based at least in part on the value of the first risk score whether to perform a second scoring process which determines a second risk score, wherein the second scoring process is different than the first scoring process; and

determining based at least in part on the second risk score whether the financial transaction should be authorized or declined.

14. (Original) The method of Claim 13, wherein the financial transaction is a check transaction.

15. (Original) The method of Claim 13, wherein receiving the request comprises receiving an electronic request.

16. (Original) The method of Claim 15, wherein receiving the electronic request comprises receiving transaction data, wherein the transaction data comprises information about the check, the writer of the check, and the merchant.

17. (Original) The method of Claim 13, wherein determining the first risk score comprises invoking a first scoring model from a plurality of scoring models, wherein the first scoring model calculates the first risk score based on the transaction data.

18. (Original) The method of Claim 17, wherein the first risk score is based on the combination of information about the check, the writer of the check, and the merchant.

19. (Original) The method of Claim 18, wherein the first risk score depends on the amount of the check.

20. (Original) The method of Claim 18, wherein the first risk score depends on check writing history of the checkwriter.

21. (Original) The method of Claim 20, wherein a positive-negative-code that is indicative of the check writing history is assigned to the checkwriter.

22. (Original) The method of Claim 21, wherein the positive-negative-code ranges from 0 to 80, wherein the code of 80 is assigned to ideal checkwriters and progressively lower codes are assigned to checkwriters with progressively higher risks.

23. (Original) The method of Claim 18, wherein the first risk score depends on rate at which the merchant submits transaction requests.

Appl. No. : **10/041,765**
Filed : **January 7, 2002**

24. (Original) The method of Claim 23, wherein the rate being greater than an average rate by a predetermined amount is considered to pose higher risks for the transactions.

25. (Original) The method of Claim 13, wherein determining whether to authorize the transaction comprises comparing the first risk score to a predetermined first cutoff score, wherein the transaction is authorized if the first risk score is higher than the predetermined first cutoff score.

26. (Original) The method of Claim 25, wherein the predetermined first cutoff score comprises a score of 500 on a normalized score scale of 0 to 1000.

27. (Original) The method of Claim 13, wherein determining the second risk score comprises invoking a second scoring model from the plurality of scoring models if the transaction is declined based on the first risk score, wherein the selected second scoring model calculates the second risk score based on the first risk score and the transaction data.

28. (Original) The method of Claim 27, wherein determining the second risk score further comprises accessing one or more external databases to obtain additional information if necessary.

29. (Original) The method of Claim 13, wherein authorizing the financial transaction comprises comparing the second risk score to a predetermined second cutoff score, wherein the transaction is authorized if the second risk score is higher than the second cutoff score.

30. (Original) The method of Claim 29, wherein the predetermined second cutoff score comprises a score of 500 on a normalized score scale of 0 to 1000.

31. (Original) A method for processing financial transactions comprising:
determining with a first scoring model a first risk score for a financial transaction; and
determining based at least in part on the first risk score, whether to determine a second risk score with a second scoring model that is different than the first scoring model.

32. (Original) The method of Claim 31, wherein the financial transaction is a check transaction.

Appl. No. : **10/041,765**
Filed : **January 7, 2002**

33. (Original) The method of Claim 31, wherein determining the first risk score comprises obtaining data associated with the financial transaction and evaluating the data.

34. (Original) The method of Claim 33, wherein obtaining the data comprises receiving a transaction authorization request from a merchant.

35. (Original) The method of Claim 33, wherein evaluating the transaction comprises invoking a first scoring model from a plurality of scoring models, wherein the first scoring model calculates the first risk score.

36. (Original) The method of Claim 31, wherein determining whether to determine the second risk score comprises evaluating the first risk score, wherein the second risk score is determined if the first risk score is lower than a predetermined first cutoff value, wherein the transaction is authorized otherwise.

37. (Original) The method of Claim 36 further comprising:
determining the second risk score with the second scoring model; and
determining whether to authorize the transaction based at least in part on the second risk score.

38. (Original) The method of Claim 37, wherein determining the second risk score comprises invoking the second scoring model from a plurality of scoring models, wherein the second scoring model calculates the second risk score.

39. (Original) The method of Claim 37, wherein determining whether to authorize the transaction comprises evaluating the second risk score, wherein the transaction is authorized if the second risk score is higher than a predetermined second cutoff score.

40. (Withdrawn) An apparatus for processing financial transactions that utilizes a first scoring model to determine a first risk score for a financial transaction wherein the apparatus is configured to evaluate the first risk score for the financial transaction to determine whether to utilize a second scoring model, the apparatus comprising:

a financial transaction request;
a first scoring model that is configured to determine a first risk score associated with the financial transaction request;

Appl. No. : **10/041,765**
Filed : **January 7, 2002**

a second scoring model that is configured to determine a second risk score associated with the financial transaction request wherein the second scoring model is different than the first scoring model; and

a risk engine that is configured to receive the transaction request and invoke the first scoring model, the risk engine further configured to invoke, based at least in part on the value of the first risk score, the second scoring model so as to determine whether to authorize the financial transaction request.

41. (Withdrawn) The apparatus of Claim 40, wherein the financial transaction is a check transaction.

42. (Withdrawn) The apparatus of Claim 40, wherein the financial transaction request is an electronic request transmitted from the merchant.

43. (Withdrawn) The apparatus of Claim 42, wherein the electronic request comprises transaction data.

44. (Withdrawn) The apparatus of Claim 40, wherein the first scoring model is a software module programmed to calculate the first risk score.

45. (Withdrawn) The apparatus of Claim 44, wherein the first scoring model is one of approximately 1200 software modules.

46. (Withdrawn) The apparatus of Claim 45, wherein the first scoring model is a neural network.

47. (Withdrawn) The apparatus of Claim 46, wherein approximately 66 of the software modules are neural networks.

48. (Withdrawn) The apparatus of Claim 40, wherein the second scoring model is a software module programmed to calculate the second risk score.

49. (Withdrawn) The apparatus of Claim 48, wherein the second scoring model is one of approximately 1200 software modules.

50. (Withdrawn) The apparatus of Claim 49, wherein the second scoring model is a neural network.

51. (Withdrawn) The apparatus of Claim 40, wherein the risk engine comprises a plurality of rules that determine the manner in which the financial transaction request is processed.

Appl. No. : 10/041,765
Filed : January 7, 2002

52. (Withdrawn) The apparatus of Claim 51, wherein the plurality of rules include pre-score rules that filter out financial transaction requests determined to be of high risk.

53. (Withdrawn) The apparatus of Claim 51, wherein the plurality of rules include a scoring rule matrix that determines the manner in which the first risk score is determined.

54. (Withdrawn) The apparatus of Claim 53, wherein the risk engine selects the first scoring model according to the scoring rule matrix based on the transaction data so as to obtain the first risk score.

55. (Withdrawn) The apparatus of Claim 54, wherein the first scoring model calculates the first risk score based on the transaction data that includes information about the check, checkwriter, and merchant associated with the transaction.

56. (Withdrawn) The apparatus of Claim 55, wherein the information about the check includes amount of the check.

57. (Withdrawn) The apparatus of Claim 55, wherein the information about the checkwriter includes a positive-negative-code that is indicative of the check writing history of the checkwriter.

58. (Withdrawn) The apparatus of Claim 57, wherein the positive-negative-code has a value that ranges from 0 to 80, wherein the positive-negative-code value of 80 represents an ideal checkwriter and the positive-negative-code value of 0 indicates a risk due to one or more returned checks that are not paid, and wherein the positive-negative-code values between 0 and 80 are indicative of risks therebetween.

59. (Withdrawn) The apparatus of Claim 55, wherein the risk associated with the merchant includes a rate at which check transaction request is received from the merchant.

60. (Withdrawn) The apparatus of Claim 59, wherein the rate being higher than an average value by a predetermined amount poses higher risks for the transactions.

61. (Withdrawn) The apparatus of Claim 55, wherein the risk engine authorizes the transaction if the first risk score is higher than a predetermined first cutoff score.

Appl. No. : 10/041,765
Filed : January 7, 2002

62. (Withdrawn) The apparatus of Claim 61, wherein the predetermined first cutoff score is a score of 500 on a normalized score scale of 0 to 1000.

63. (Withdrawn) The apparatus of Claim 51, wherein the plurality of rules include post-score rules that are invoked based on the first risk score.

64. (Withdrawn) The apparatus of Claim 63, wherein the post-score rules are invoked if the transaction is declined due to the first risk score.

65. (Withdrawn) The apparatus of Claim 64, wherein the risk engine determines, according to the post-score rules, the manner in which the second risk score is obtained.

66. (Withdrawn) The apparatus of Claim 65, wherein the risk engine selects, according to the post-score rules, the second scoring model based on the first risk score and the transaction data so as to obtain the second risk score.

67. (Withdrawn) The apparatus of Claim 66, wherein the risk engine selectively accesses one or more external databases according to the post-score rules to obtain additional information about the transaction.

68. (Withdrawn) The apparatus of Claim 66, wherein the risk engine obtaining the second risk score according to the post-score rules permits the transaction to be evaluated more specifically such that risk associated with the transaction is determined more accurately.

69. (Withdrawn) The apparatus of Claim 67, wherein the risk engine authorizes or declines the transaction based on the second risk score.

70. (Withdrawn) An apparatus for processing financial transactions comprising:

a first module configured to determine a first risk score for a financial transaction; and

a second module that is different than the first module and configured to determine based at least in part on the first risk score, whether to determine a second risk score.

71. (Withdrawn) The apparatus of Claim 70, wherein the financial transaction is a check transaction.

Appl. No. : **10/041,765**
Filed : **January 7, 2002**

72. (Withdrawn) The apparatus of Claim 71, wherein the check transaction is processed electronically.

73. (Withdrawn) The apparatus of Claim 70, wherein the first module is a first computer processor programmed to obtain data associated with the financial transaction.

74. (Withdrawn) The apparatus of Claim 73, wherein the first module is further programmed to determine the first risk score for the financial transaction.

75. (Withdrawn) The apparatus of Claim 74, wherein the first module comprises a first scoring model that includes one or more algorithms configured to calculate the first risk score based on the transaction data.

76. (Withdrawn) The apparatus of Claim 75, wherein the first module either authorizes or declines the transaction based on the first risk score.

77. (Withdrawn) The apparatus of Claim 70, wherein the second module is a second computer processor programmed to evaluate the first risk score.

78. (Withdrawn) The apparatus of Claim 77, wherein the second module determines the second risk score if the transaction is declined based on the first risk score.

79. (Withdrawn) The apparatus of Claim 78, wherein the second module comprises a second scoring model that includes one or more algorithms configured to calculate the second risk score based on the first risk score and the transaction data.

80. (Withdrawn) The apparatus of Claim 79, wherein the second module either authorizes or declines the transaction based on the second risk score.

81. (Withdrawn) The apparatus of Claim 79, wherein the second scoring model is different from the first scoring model.

82. (Withdrawn) The apparatus of Claim 79, wherein the second risk score represents a more accurate risk assessment for a given transaction such that a portion of the transactions that are declined based on the first risk score are authorized based on the second risk score.